Trade and Industrial Education
Course: Digital Electronics
Course Code # 5783
1 Credit

School Year _____

Term:____Fall____Spring

Student:	Grade:
Teacher: School:	
Number of Competencies in Course: **19**	
Number of Competencies Mastered:	
Percent of Competencies Mastered:	

STANDARD 1.0: Students will demonstrate the use of gates and counters in logic circuits.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
1.1	Construct logic circuits using gates.		
1.2	Construct logic circuits using flip-flops, counters, and gates.		

STANDARD 2.0: Students will demonstrate the use of oscillators in logic circuits.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
2.1	Examine the functions of RC (resistor and capacitor) and crystal-controlled oscillators.		
2.2	Construct RC and crystal-controlled oscillators.		

STANDARD 3.0: Students will demonstrate the functions of and be able to operate switches and multiplexers in signal distribution.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
3.1	Use digitally controlled analog switches to control analog and digital signal distribution.		
3.2	Use analog switches to perform multiplexing functions.		

STANDARD 4.0: Students will demonstrate the functions of and be able to operate analog and digital convertors.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
4.1	Compare and contrast analog and digital data.		
4.2	Determine sampling rates required for input signals.		
4.3	Interpret and create block diagrams of D/A (digital/analog) and A/D convertors.		

STANDARD 5.0: Students will program and modify microcontrollers.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
5.1	Use and modify microcontroller features.		
5.2	Explore microcontroller support devices.		
5.3	Program microcontrollers.		

STANDARD 6.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
6.1	Demonstrate dignity in work.		
6.2	Participate in SkillsUSA-VICA as an integral part of classroom instruction.		
6.3	Evaluate school, community, and workplace situations by applying problem-solving and decision-making skills.		
6.4	Demonstrate the ability to work professionally with others.		

Students will perform safety examinations and maintain safety records.

Learning Expectations	Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
Safety1	Pass with 100 % accuracy a written examination relating to safety issues.		
Safety2	Pass with 100% accuracy a performance examination relating to safety.		
Safety3	Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.		

Additional Comments _____